

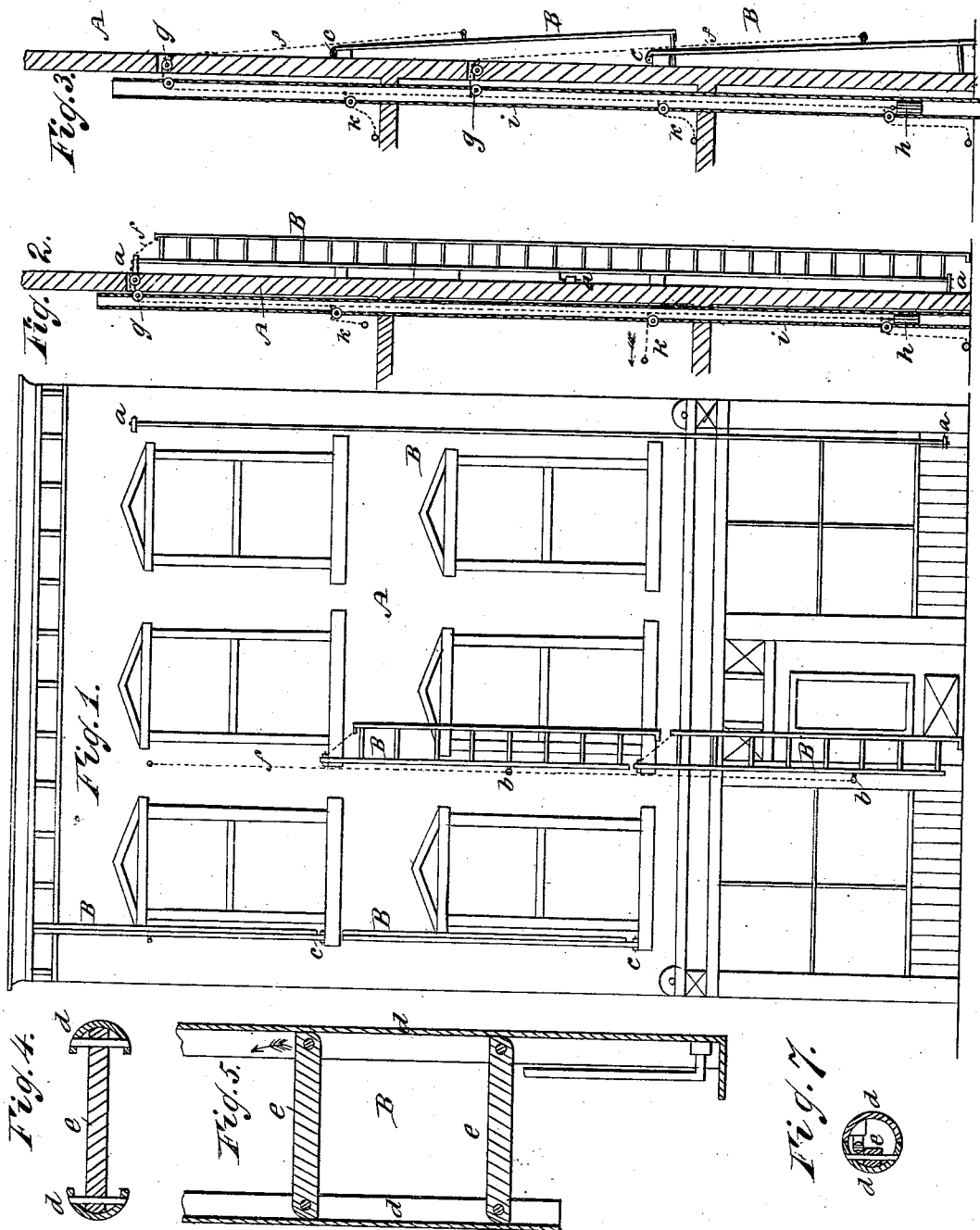
(No Model.)

A. SWANSON.

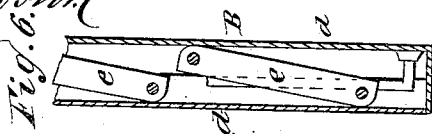
FIRE ESCAPE.

No. 261,064.

Patented July 11, 1882.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 261,064, dated July 11, 1882.

Application filed March 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANDREW SWANSON, of the city, county, and State of New York, have invented a new and Improved Fire-Escape, of which the following is a full, clear, and exact description.

The object of my invention is to provide buildings with fire-escapes that shall occupy but small space when not in use, and which can be readily and quickly brought into position for use.

The invention consists in folding ladders constructed and arranged for use, as herein-after described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of a building provided with the improved fire-escape. Figs. 2 and 3 are transverse vertical sections of the building with the ladders in position of use. Figs. 4, 5, 6, and 7 are detail sections, showing the construction of the ladders.

A is the front wall of a building, and B B are the fire-escape ladders, hung on the building at the sides of the windows. Three methods of arranging the ladders are shown—one a continuous ladder of a length to reach from the sidewalk to the upper windows, attached to the wall by pintles *a*, so as to be swung out, as shown in Fig. 2; or, in place of the continuous ladder, two or more shorter ladders may be used and hung by pintles *b*, as in Fig. 1. The third method, illustrated in Figs. 1 and 3, consists in attaching short ladders by hinged joints *c* at one end, so that they may be swung upward out of the way or downward into the position of use. The ladders are constructed, as shown most clearly in Figs. 4, 5, and 6, of semi-circular or U form side bars, *d d*, connected by rounds *e*, that are pivoted at their ends to the side bars, so that the bars can be closed together. The rounds are inclosed in this folded position of the ladder, and I form their ends square on one angle to take against the side bars, so as to limit the opening movement and prevent the rounds from passing below the horizontal position. The attachment to the building is made on one of the side bars *d*, and

the ladder opens by the other bar swinging outward. To the moving bar is connected one end of a chain or rope, *f*, that extends over rollers *g*, through an opening in the wall, to the inside, where the chain carries a balance-weight, *h*, inside of a fixed tube, *i*. At each floor is a short rope or chain, *k*, connected to chain *f* and extending outside the tube, for use in lifting the chain and weight, so that the ladder may fall into position of use. With the ladders hung to swing over endwise the same chain and weight are used, and the weight prevents them falling suddenly.

The ladders constructed as described and secured to the building occupy but little space and are not unsightly. They can be brought into use in a moment by any person in the building.

I am aware that a fire-escape ladder having its side bars recessed in opposite directions, with a shoulder at one end of each recess, in which recesses the rounds are pivoted, has heretofore been employed, and I therefore lay no claim to such invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. An improved fire-escape ladder, consisting of the U-shaped bars *d* and the rounds *e*, pivoted to the said bars, and having their diagonally-opposite corners beveled or rounded, substantially as herein shown and described, whereby the opening movement is limited and the rounds prevented from passing below a horizontal position, as set forth.

2. In a fire-escape, the combination of the folding ladders B, constructed substantially as shown and described, and hinged to the wall of a building, with the chains *g*, the balance-weight *h*, and the tube *i*, secured to the inside of the building, as and for the purpose set forth.

3. In a fire-escape, the combination, with the hinged and folding ladders B, the tube *i*, and the chains *f*, provided with the weight *h*, of the chains *k*, secured to the chains *f* and extending outside of the tube, substantially as and for the purpose set forth.

ANDREW SWANSON.

Witnesses:

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